

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior listings and versions of claims in the application.

CLAIMS:

1-100 (canceled)

101. (currently amended) A ~~kit~~ set of reagents, comprising:

- a) a thermostable cleavage agent;
- b) a first oligonucleotide comprising: i) a charged adduct, and ii) a portion completely complementary to a first region of a target nucleic acid; and
- c) a second oligonucleotide comprising a 3' portion and a 5' portion, said 5' portion completely complementary to a second region of said target nucleic acid downstream of and contiguous to said first ~~portion~~ region.

102. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said 3' portion of said second oligonucleotide comprises a 3' terminal nucleotide not complementary to said target nucleic acid.

103. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said 3' portion of said second oligonucleotide consists of a single nucleotide not complementary to said target nucleic acid.

104. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said kit further comprises a solid support.

105. (currently amended) The ~~kit~~ set of reagents of Claim 104, wherein said first oligonucleotide is attached to said solid support.

106. (currently amended) The ~~kit~~ set of reagents of Claim 104, wherein said second oligonucleotide is attached to said solid support.

107. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said cleavage agent comprises a structure-specific nuclease.

108. (canceled)

109. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said cleavage agent comprises a 5' nuclease.

110. (canceled)

111. (currently amended) The ~~kit~~ set of reagents of Claim 109, wherein a portion of the amino acid sequence of said nuclease is homologous to a portion of the amino acid sequence of a thermostable DNA polymerase derived from a thermophilic organism.

112. (currently amended) The ~~kit~~ set of reagents of Claim 101, further comprising a buffer solution.

113. (currently amended) The ~~kit~~ set of reagents of Claim 101, further comprising providing a third oligonucleotide complementary to a third ~~portion~~ region of said target nucleic acid upstream of said first ~~portion~~ region of said ~~first~~ target nucleic acid.

114. (currently amended) The ~~kit~~ set of reagents of Claim 101, further comprising said target nucleic acid.

115. (currently amended) The ~~kit~~ set of reagents of Claim 101, further comprising a second target nucleic acid.

116. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said charged adduct comprises a linker.

117. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said charged adduct comprises a detectable molecule.

118. (currently amended) The ~~kit~~ set of reagents of Claim 117, wherein said detectable molecule is Cy3, Cy5, a fluorescent dye, ethidium bromide, (1,3-propanediamino)-propidium, (diethylenetriamino)-propidium, thiazole orange, (N-N'-tetramethyl-1,2-ethanediamino)-propyl thiazole orange, (N-N'-tetramethyl-1,3-propanediamino)-propyl thiazole orange, TOTAB, TOTO, EthD, TOED1, TOED2, or FED.

119. (currently amended) The ~~kit~~ set of reagents of Claim 117, wherein said detectable molecule comprises fluorescein.

120. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said charged adduct comprises at least one amino acid.

121. (currently amended) The ~~kit~~ set of reagents of Claim 120, wherein said at least one amino acid is lysine, arginine, aspartate, or glutamate.

122. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said charged adduct comprises at least one amino-modified base.

123. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said charged adduct is located at the 5' end of said first oligonucleotide.

124. (currently amended) The ~~kit~~ set of reagents of Claim 101, wherein said first oligonucleotide comprises an uncleavable region.

125. (currently amended) The ~~kit~~ set of reagents of Claim 124, wherein said charged adduct is attached to said uncleavable region of said first oligonucleotide.